

Extracorporeal Lithotripsy with an Electromagnetic Lithotripter. About 150 Procedures

NIZAR CHERNI¹, WAEL FARJAOUI^{2*}, ABDALLAH CHAACHOU¹, SAMIR GHOZZI¹ and MOHAMED DRIDI¹

¹Urology Department, Tunis Military Hospital

²General Surgery Department, Tunis Military Hospital

*Corresponding author: WAEL FARJAOUI, General Surgery Department, Tunis Military Hospital.

Submitted: 04 September 2023 Accepted: 08 September 2023 Published: 12 September 2023

doi <https://doi.org/10.63620/MKJCSCR.2023.1006>

Citation: Cherni, N., Farjaoui, W., Chaachou, A., Ghazzi, S., & Dridi, M. (2023). Extracorporeal Lithotripsy with an Electromagnetic Lithotripter. About 150 Procedures. *J Clin surg Care Res*, 2(3), 01.

Introduction

Over the last twenty years, the treatment of urinary stones has been transformed by the invention of extracorporeal lithotripsy (ECL).

We present our experience of the urology department of the Military Hospital of Tunis concerning ECL with a SIEMENS® electromagnetic lithotripter.

Materials and Methods

Retrospective analytical study.

150 cases of LEC during the first three months after the installation of our machine.

Siemens electromagnetic lithotripter. Fluoroscopic tracing.

The firing frequency was 90 shots/minute for renal lithiasis and 120 shots/minute for ureteral lithiasis.

We analyzed the location and size of the stones, the number of shots, the average energy delivered, the complications and the results at 1 and 3 months.

Results

- 150 patients had a LEC.
- 96 ♂ and 54 ♀.

- The mean age was 48 years (21 - 85).
- Lithiasis history in 30% of cases.
- Number of strokes:
 - renal lithiasis: 2550 (1500 - 3000)
 - ureteral lithiasis: 3500 (2000 - 5000)
- The average energy varied between 1.2 and 3.8 joules.
- The stone free rate at 1 month and 3 months was 68% and 81.3% respectively.
- For stones less than or equal to 2 cm in size, the stone free rate at 3 months was 85%.
- Morbidity was low:
 - 3 cases of ureteral impaction
 - 2 cases of acute pyelonephritis.
- Auxiliary procedures:

Conclusion

Extracorporeal lithotripsy using a Siemens electromagnetic lithotripter is an effective and minimally invasive method:

- low re-treatment rate.
- high rate of stone free.
- low complication rate.